

Application No. 10/647,799
Amendment dated February 14, 2006
Reply to Office Action of November 14, 2005

Docket No.: 06005/39598

AMENDMENTS TO THE DRAWINGS

Please amend Fig. 1B to include labels as shown on the attached replacement sheet for that figure.

REMARKS

This paper is in response to the office action dated November 14, 2005. Reconsideration is respectfully requested.

In the office action, the drawings were objected to because "in figure 1B the function blocks need to be labeled as to which function, element or step they represent." Office action at page 2. In response, submitted herewith is a replacement sheet containing a revised version of Fig. 1B that includes labels as requested in the office action. Accordingly, reconsideration and withdrawal of the objection to the drawings is respectfully requested.

Claims 1, 7, and 12 have been rejected under 35 U.S.C. §103(a) as obvious over Vedder, Jr. et al, U.S. Patent No. 6,179,997 in view of Naman, U.S. Patent No. 2,916,101. Claims 2-4, 6, 8, 10, and 11 have been rejected as obvious over Vedder Jr. et al., in view of Naman, and further in view of Wears et al., U.S. Patent No. 6,026,859. Claims 5 and 9 have been rejected as obvious over Vedder, Jr., et al. in view of Naman and Wears, et al., and further in view of Sherikar et al., U.S. Patent No. 6,739,426.

Reconsideration and withdrawal of these claim rejections is respectfully requested in view of the following remarks.

1. Proper Basis for a § 103(a) Rejection

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings of a plurality of references. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the applicants' own disclosure. *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); see also M.P.E.P. § 2143.

The examiner bears the burden of establishing a *prima facie* case of obviousness and “can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). To support a conclusion that a claimed combination is obvious, either (a) the references must expressly or impliedly suggest the claimed combination to one of ordinary skill in the art, or (b) the examiner must present a convincing line of reasoning as to why a person of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985). It is “incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference.” *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1462 (Bd. Pat. App. & Inter. 1990) (citing *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick*, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984)).

It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). *See also*, M.P.E.P. § 2145. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). *See also*, M.P.E.P. § 2143.01

2. **No *Prima Facie* Case of Obviousness Has Been Made and, therefore, the § 103(a) Rejections are Traversed as Improper**

Claim 1, and claims 2-6 depending from claim 1, are directed to a sparger adapted for placement within a duct, the duct having a first fluid flow substantially parallel to a longitudinal axis defined by the duct. The sparger includes a housing having an interior chamber for receiving a second fluid flow having an associated pressure higher than the first fluid flow. The housing is shaped to have an aerodynamic profile as encountered by the first

fluid flow. The sparger also includes a plurality of fluid passage ways formed by the housing to allow the second fluid flow to pass through the chamber to enter the first fluid flow at a decreased pressure.

Claim 7, and claims 8 through 11 depending from claim 7, are directed to a noise abatement device for turbine bypass in air-cooled condensers. The noise abatement device includes a plurality of spargers adapted for placement within a duct having a first fluid flow. The first fluid flow is substantially parallel to a longitudinal axis of the duct. At least one of the plurality of spargers comprises a housing having an interior chamber for receiving a second higher pressure fluid flow such that the housing forms a plurality of fluid passage ways to allow the second fluid of higher pressure to flow through the chamber and enter the first fluid flow within the duct at a decreased pressure. At least one of the pluralities of spargers is shaped to have a profile to substantially reduce the aerodynamic resistance of the spargers.

Claim 12 is directed to a method of reducing the aerodynamic resistance within a turbine exhaust duct having a first fluid flow. The method includes fashioning a sparger with a housing having an interior chamber. The housing forms a plurality of fluid passageways for receiving and transferring a second higher pressure fluid flow into the first fluid flow at a controlled rate. The housing is shaped to have an aerodynamic profile as encountered by the first fluid flow. The method further includes mounting the noise abatement device comprised of at least one sparger within a turbine exhaust duct. The noise abatement device is generally symmetrically situated within the turbine exhaust duct.

Vedder, Jr., et al. is directed to an apparatus and process, including a perforated-pipe sparger 118, for atomizing a liquid stream. The sparger 118 of Vedder, Jr., et al. has a circularly cylindrical geometry, as seen in Figs. 1-3 of Vedder, Jr., et al. Accordingly, the sparger of Vedder Jr., et al. does not present an aerodynamic profile. Instead, it is noted in numerous places in Vedder, Jr., et al. that a turbulent mixture is desired (in order to uniformly distribute atomized liquid within another medium). See, e.g., column 4, lines 63-66, column 5, lines 23-28, column 7, lines 25-28, column 7, lines 53-58, and claim 11 at column 10, lines 51-55. As such, Vedder, Jr., et al. actually teaches away from the invention of the present application, as each of the independent claims which specifically

recite an aerodynamic shape associated with the sparger of the invention. Specifically: claim 1 recites that the sparger includes “shapes to have an aerodynamic profile as encountered by the first fluid flow;” claim 7 recites “at least one of the plurality of spargers being shaped have a profile to substantially reduce the aerodynamic resistance of the spargers;” and claim 12 recites “the housing is shaped to have an aerodynamic profile as encountered by the first fluid flow...”

By teaching the opposite of what is claimed, Vedder, Jr. et al. teaches away from the claimed invention. Moreover, there would be no way to make the needed modifications to the atomizer disclosed in Vedder, Jr. et al. to achieve the claimed invention without destroying the express teachings of Vedder, Jr. et al. and without rendering the atomizer construction of the Vedder, Jr. et al. completely inoperable. Accordingly, no *prima facie* case of obviousness can be established based even in part on Vedder, Jr. et al.

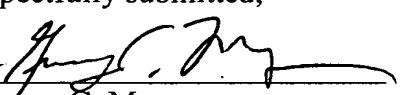
To summarize, Vedder, Jr., et al. teaches away from the invention and a *prima facie* case of obviousness cannot be established based on Vedder, Jr., et al., alone or in combination with the other cited references. Accordingly, the rejections set forth in the office action dated November 14, 2005 are improper and should be withdrawn.

CONCLUSION

In view of the foregoing, the above-identified application is in condition for allowance. In the event there is any remaining issue that the examiner believes can be resolved by a telephone conference, the examiner is respectfully invited to contact the undersigned attorney at 312-474-9571.

Dated: February 14, 2006

Respectfully submitted,

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